



News Release

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Charleston County Public Works Partners with Local Organizations on Extreme Heat and Pavement Technology

Charleston County Government is partnering with the S.C. Sea Grant Consortium and The Citadel on their Charleston Heat Health Research Project. This week, Charleston County Public Works is expanding its use of new pavement technology designed to extend the life of the road, reduce air pollution, help to remove road associated microplastics, and help to limit the “heat island” effect that raise temperatures. The Citadel and S.C. Sea Grant Consortium will be testing the roads for heat before and after the treatment, PlusTi™, a photocatalytic asphalt rejuvenator treatment being applied to roads downtown and in North Charleston.

Extreme heat was identified as a significant risk to Charleston in the City’s 2020 Vulnerability Assessment. Extreme heat can have negative health impacts for many people, including elderly populations, outdoor workers, and athletes. “This technology not only extends the life of our roads at a significantly lower cost, but also has a lot of positive environmental impacts for our community,” said Charleston County Pavement Manager Mackenzie Kelley. “We’re very excited about the results of our first study and eager to partner with The Citadel and S.C. Sea Grant Consortium to learn more about how we can reduce negative heat impacts as we continue to grow our pavement management program.”

In 2021, Charleston County used this treatment in the Rosemont and Union Heights neighborhoods. Testing by the Texas A&M Transportation Institute on the roads found the PlusTi™ titanium dioxide treatment extended the life of the road by five years, eliminated nearly all roadway microplastic debris, reduced harmful vehicle pollution by 39% and created a surface that is four times more emissive than untreated roads. More details on Charleston County’s Pavement Management Program can be found at <https://www.charlestonctc.org/pavement.php>.

In keeping with the Americans with Disabilities Act (ADA), those needing assistance should contact Charleston County at (843) 202-6917 during regular business hours

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- written by the Public Information Office -